

PROCEDURE 24 - Safety Training Program

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Synopsis

This procedure establishes requirements and guidance for the NWS occupational safety and health training. The procedure applies to all NWS facilities, work locations, and employees.

Initial Implementation Requirements:

- **Analyze Site Operations versus Requirements of the Procedure**
- **Develop/Obtain Documentation/Information required for Site**
 - Evaluate and document site-specific training requirements. (24.5.2b, 24.3.3b, Attachment B)
 - Develop site-specific Safety Orientation. (24.5.2c, 24.3.2b, 24.3.3a, Attachment A)
- **Designate Person to Administer Safety Training Procedure Requirements**
- **Provide Local Training of Site Personnel**
 - Safety Orientation for the visitors, contractors and newly hired site personnel. (24.3.2b, 24.3.3a, Attachment A)
 - Focal Points Training on safety procedures applicable to the site. (24.3.3c)

Recurring and Annual Task Requirements:

- **Review/Update Documentation/Information required for Site**
 - Perform annual review of Site-Specific Training Requirements. (24.4.2)
 - Maintain/File/Review Training Records. (24.5.3b)
- **Provide Refresher Training of Site Personnel (as required)**
 - Focal Points Training on safety procedures applicable to the site. (24.3.3c)

Safety Training Program Checklist

Requirements	EHB 15 Reference	YES	NO	N/A	Comments
Is initial and annual review of this procedure conducted and documented?	24.4.2				
Do short and long term visitors and contractor personnel receive an appropriate safety orientation as required by this procedure?	24.3.2a,b Attachment A				
Are contractor personnel required to have all applicable safety training before commencing work?	24.3.2d				
Do new NWS employees receive a safety orientation within one week of being hired?	24.3.3a				
Do all site personnel receive applicable safety and health training for specific job tasks?	24.3.3b Attachment B				
Does Safety or Environmental/Safety Focal Point receive initial and periodic refresher safety training?	24.3.3c				
Has the Station Manager been provided with an overview of applicable safety procedures?	24.3.3d				
Are all training records maintained in an accessible location on site?	24.5.3b				

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24 SAFETY TRAINING PROGRAM

24.1 Purpose And Scope

As part of its goal to provide a safe and healthful workplace, the National Weather Service (NWS) is promulgating this procedure to establish requirements and guidance for the NWS occupational safety and health training. This procedure applies to all NWS facilities, work locations, and employees.

24.2 Definitions

Field Office. A Field Office may include the following: Weather Forecast Office (WFO), River Forecast Center (RFC), Weather Service Office (WSO), and a Data Collection Office (DCO).

Hazardous Energy Source. Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other energy that has the potential to cause injury to employees.

Long-Term Visitor. A visitor whose intended stay is estimated at more than 10 working days.

NWS Employees. For the purpose of this procedure, this includes full-time, part-time and temporary NWS employees.

Operating Unit. For the purpose of this procedure, Operating Unit includes the National Centers for Environmental Prediction (NCEP), National Data Buoy Center (NDBC), NWS Training Center (NWSTC), National Reconditioning Center (NRC), Radar Operations Center (ROC), or the Sterling Research & Development Center (SR&DC).

Safety Orientation. An overview of NWS selected safety and health procedures and site-specific information which is presented as part of new employee and contractor orientation.

Short-Term Visitor. A visitor whose intended stay is estimated at 10 working days or less.

Station Manager. For the purpose of this procedure, the Station Manager shall be either the NWS Regional Director; Directors of Centers under NCEP (Aviation Weather Center, NP6; Storm Prediction Center, NP7; and Tropical Prediction Center, NP8); Directors of the NDBC, NWSTC, and Chiefs of NRC, ROC and SR&DC facilities; or Meteorologist in Charge (MIC), Hydrologist in Charge (HIC), or Official in Charge (OIC).

24.3 Procedure

24.3.1 In an effort to provide a safe and healthful workplace, safety training will be provided to all NWS employees, contractors, and long-term visitors. The safety training will emphasize risks that are present and controls that are in place. All NWS employees shall participate in the training programs that are required for their job category. An employee who feels that more information is needed shall inform his/her supervisor and/or the Safety or Environmental/Safety Focal Point.

24.3.2 Visitors

- a. Short-term visitors under escort will not be required to receive a safety orientation. However, short-term visitors without an escort shall be given a safety orientation at the time of their arrival.
- b. On the day of their arrival at the NWS, long-term visitors shall be given a safety orientation. The safety orientation shall be given by the Safety or Environmental/Safety Focal Point or his/her designee. (See Attachment A: Safety Orientation Outline)
- c. Before commencing work, contractors shall attend a safety orientation. This orientation will provide a brief explanation of the NWS safety requirements. (See attachment A: Safety Orientation Outline)
- d. Contractor personnel shall have all safety and health training applicable to the specific work being performed.

24.3.3 NWS Personnel. All NWS personnel shall participate in an ongoing process of safety training.

- a. Within one week of being hired, new employees shall be given a safety orientation.
- b. Employees shall receive safety and health training applicable to the specific work being performed. NWS training courses and their applicability to employees and facilities are listed in table 24-1. (See attachment B: Site-Specific Training Requirements, WFO Springfield, MO).
- c. Safety or Environmental/Safety Focal Points shall receive initial and periodic refresher training, as required, on all safety and health procedures applicable to their sites.
- d. Station Managers shall be provided an overview of all safety and health procedures applicable to their sites.

Table 24 -1. Summary of NWS Training

Procedure Number and Name	Reference	Applicability to NWS
1. Fall Protection	29 CFR 1910.28, .66, .145; 29 CFR 1926.104, Subpart M, Subpart L; ANSI Z359.1-1992	Applicable to all NWS facilities. Applicable to all NWS personnel working on or near unguarded elevated surfaces or climbing/descending structures (e.g., towers, river gauges).
2. Working Alone	NWS Occupational Safety and Health Procedure #1; "Fall Protection", NWS Occupational Safety and Health Procedure #12, "Confined Space Entry"; OSHA 29 CFR 1910, Subpart Z, "Toxic Substances"; ACGIH "Threshold Limit Values"	Applicable to all NWS facilities. Applicable to NWS personnel who perform potentially hazardous duties that require additional personnel assignment.
3. Safe Electrical Work Practices	29 CFR 1910.145, .301-.308, .331-.335; NFPA 70E; NFPA 70; NWS Occupational Safety and Health Procedure 4, "Control of Hazardous Energy Sources"; NWS Occupational Safety and Health Procedure 2, "Working Alone"; NWS Occupational Safety and Health Procedure 8, "Personal Protective Equipment."	Applicable to all NWS facilities and personnel involved in maintenance and repair of electrical equipment.
4. Control of Hazardous Energy Sources	29 CFR 1910.147; ANSI Z244.1-1982; National Fire Protection Association, NFPA 70, NEC; NWS Occupational Safety and Health Procedure #3, "Safe Electrical Work Practices."	Applicable to all NWS facilities and personnel. General training applicable to all NWS employees; specific training applicable to NWS employees involved in the installation and/or the maintenance and repair of electrical equipment.

Procedure Number and Name	Reference	Applicability to NWS
5. Emergency Action Plan	29 CFR 1910.38; USDOC Occupational Safety and Health Manual; NFPA 101, 101.31.1.5; NWS Occupational Safety and Health Procedure #6, "Fire Protection"; NWS Occupational Safety and Health Procedure #23, "Emergency Response Agreements."	Applicable to all NWS facilities and personnel.
6. Fire Protection	29 CFR 1910.36-37, .157, .164, .165; 29 CFR 1910, Subpart L, Appendix A, "Fire Protection."; NFPA 10, "Fire Extinguishers"; NFPA 70, "National Electrical Code"; Americans with Disabilities Act (ADA) Section 4, "Accessible Elements and Spaces: Scope and Technical Requirements."	Applicable to all NWS facilities and personnel.
7. Hazard Communication	29 CFR 1910.1200, Hazard Communication.	Applicable to all NWS facilities and personnel working with or around hazardous chemicals.
8. Personal Protective Equipment	29 CFR 1910 Subpart I, "Personal Protective Equipment"; 29 CFR 1910.95, .145; 29 CFR 1910 Subpart Q, "Welding, Cutting and Brazing"; ANSI Z358.1-1998; ANSI Z41-1991; ANSI Z87.1-1989; ANSI Z89.1-1986; DOC Safety Manual; NWS Occupational Safety and Health Procedure #7, "Hazard Communication Program".	Applicable to all NWS facilities and personnel required to use PPE.

Procedure Number and Name	Reference	Applicability to NWS
9. Compressed Gas Safety	29 CFR 1910.101-.104, .253; CFR 1910 Subpart M; CGA P-1; NFPA, as applicable; ANSI UL 407-1995 & 248.1-1954 & B31.1-1967; Compressed Gas Association, as applicable; Federal Meteorological Handbook, No. 3.; ASME Boiler and Pressure Vessel Code; 49 CFR 173.34 "Qualifications, Maintenance and Use of Cylinders"; U.S. Department of Labor, Occupational Safety and Health Administration, 29 CFR 1910, Subpart S, Electrical; U.S. Department of Labor, Occupational Safety and Health Administration, 29 CFR 1926.153, Liquified Petroleum Gases.	Applicable to all NWS facilities which use compressed gases. Applicable to all NWS personnel required to use/handle or work in the close proximity of compressed gas(es).
10. Respiratory Protection	29 CFR 1910.134, .139, Subpart Z; ANSI Z88.2-1992; NIOSH 84 CFR 42; Fundamentals of Industrial Hygiene, 4 th Edition.	Applicable to all NWS facilities and employees who are required to use respiratory protection.
11. Hearing Conservation	29 CFR 1910.95, Occupational Noise Exposure; ACGIH <u>TLVs for Chemicals Substances and Physical Agents, Biological Exposure Indices</u> (1998); NIOSH Criteria for a Recommended Standard: Occupational Exposure to Noise (1972); ANSI S1.4-1983 (R1997)	Applicable to all NWS facilities. Applicable to all NWS employees exposed to noise at or above the OSHA action level.
12. Confined Space Entry	29 CFR 1910.146, .147, .252; NIOSH Alert Request for Assistance in Preventing Occupational Fatalities in Confined Spaces (1986); NIOSH A Guide to Safety in Confined Spaces, July 1987; NIOSH Criteria for a Recommended Standard Working in Confined Spaces, November 1979	Applicable to all NWS facilities which have confined spaces. Applicable to all NWS employees who are involved in confined space entry.

Procedure Number and Name	Reference	Applicability to NWS
13. Indoor Air Quality	29 CFR 1910 Subpart Z; ASHRAE Standards 55 and 62; USEPA <u>Building Air Quality: A Guide for Building Owners and Facility Managers</u> ; ACGIH, <u>TLVs and BEIs, Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices</u> .	Applicable to all NWS facilities. Applicable to all NWS personnel involved with the maintenance and/or operation of HVAC systems plus individuals working with facility indoor air quality.
14. Walking and Working Surfaces	29 CFR 1910 Subpart D; NFPA 101; ANSI 14.3-1992; ANSI 1264.1-1989; ANSI A14.1-1994; ANSI A14.2-1992; ANSI A14.3-1990; ASTM A36/A36M; NWS Occupational Safety and Health Procedure #1, "Fall Protection".	Applicable to all NWS facilities and personnel.
15. Battery Charging and Storage Operations	29 CFR 1910.178; NFPA 70B-27, 110-16	Applicable to all NWS facilities which have battery systems. Applicable to all NWS personnel involved in the maintenance of batteries and equipment or those who work with or in close proximity to battery charging systems.
16. Flammable and Combustible Liquid Storage	29 CFR 1910.106; NFPA 30; NFPA 251; U.S. Environmental Protection Agency 40 CFR Part 261.21, "Characteristic of Ignitability."	Applicable to all NWS facilities using/storing flammable and/or combustible liquids. Applicable to all NWS personnel who work with or in close proximity to flammable and/or combustible liquids.

Procedure Number and Name	Reference	Applicability to NWS
17. Ionizing and Non-Ionizing Radiation Safety	29 CFR 1910.97, 1096; ACGIH TLVs for Chemical Substances and Physical Agents; 10 CFR 83.208“Occupational Radiation Protection”; NRC 10 CFR 20 “Standards for Protection Against Radiation.”	Applicable to all NWS facilities which have radiation-producing equipment. Applicable to all NWS personnel required to work around radiation-producing equipment.
18. Accident /Illness Reporting and Recording	29 CFR 1960, Subpart I, Recordkeeping and Reporting Requirements; 29 CFR 1904, USDOC Occupational Safety and Health Manual Chapter 11; USDOC Department Administrative Orders Series, Chapter 9 Title: Safety	Applicable to all NWS facilities and personnel.
19. Hand and Power Tool Safety	29 CFR 1910.242-.244, Subpart I; 29 CFR 1926.21, Subpart I; NEC 250-114; ANSI B11.1-88	Applicable to all NWS facilities which use hand and power tools. Applicable to all NWS personnel who perform maintenance on or use hand and/or power tools in the performance of their jobs.
20. Machine Guarding	29 CFR 1910.212, .213, .215; 29 CFR 1926.300; USDOC Dept. AO #209-4; NEC	Applicable to all NWS facilities. Applicable to NWS employees who work on/with equipment that requires guarding.
21. Laser Safety	ACGIH TLVs for Chemical Substances and Physical Agents; ANSI Z136.1-1993; 21 CFR Parts 1000 & 1040; NWS Engineering Handbook 11; NSC Fundamentals of Industrial Hygiene 4 th Edition.	Applicable to all NWS facilities which are using laser systems. Applicable to all NWS personnel involved in laser operations.

Procedure Number and Name	Reference	Applicability to NWS
22. Cranes, Hoists and Slings	29 CFR 1910.179, .180, .184; 29 CFR 1926.550; ANSI B30-2, B30-9, B30-10, B30-16	Applicable to all NWS facilities which have cranes, hoists and slings. Applicable to all NWS personnel involved in operating/using cranes, hoists and slings.
23. Emergency Response Agreements	NWS Occupational Safety and Health Procedure 5, "Emergency Action Plan"	Applicable to NWS facilities. Applicable to all NWS personnel who establish ERAs with local emergency response organizations.
24. Safety Training Program	OSHA 2254 (Revised), 1992, "Training Requirements in OSHA Standards and Training Guidelines."	Applicable to all NWS facilities, personnel, contractors and visitors
25. Ergonomics	ACGIH TLVs for Chemical and Physical Agents; IES/ANSI RP-7-1991; IES/ANSI RP-1-1982; (NIOSH), <u>Applications Manual for the Revised Lifting Equation</u> ; (NIOSH) <u>Lifting Work Practices Guide</u> ; <u>Working Safety with Video Display Terminals</u> , OSHA Publication 3092..	Applicable to all NWS facilities and personnel.
26. Trenching and Excavation Operations	CFR 1926 Subpart P; 29 CFR 1926, Subpart M, "Fall Protection."; 29 CFR 1910, Subpart Z; ACGIH TLVs for Chemical Agents and Physical Agents; NWS Occupational Safety and Health Procedures #8, "Personal Protective Equipment"; and NWS Occupational Safety and Health Procedures #10, "Respiratory Protection Program.".	Applicable to all NWS facilities and personnel involved in construction or maintenance where trenching and/or excavation is involved.
27. Forklift	29 CFR 1910.178; ANSI B56.1; NWS Occupational Safety and Health Procedure 16, "Flammable and Combustible Liquid Storage".	Applicable to all NWS facilities where forklifts are used. Applicable to all NWS personnel who operate forklifts.

Procedure Number and Name	Reference	Applicability to NWS
28. Welding/Hot Work	29 CFR 1910.252 Subpart Q; NFPA 51B; NWS Occupational Safety and Health Procedure #12, "Confined Space Entry"; NWS Occupational Safety and Health Procedure #1, "Fall Protection"; NWS Occupational Safety and Health Procedure #8, "Personal Protective Equipment"; NWS Occupational Safety and Health Procedure #6, "Fire Protection".	Applicable to NWS facilities which have welding/hot work operations. Applicable to all NWS personnel involved in welding/hot work operations.
29. Small Boat Safety	33 CFR, Navigation and Navigable Waters; NAO 217-103, Management of NOAA Small Boats; NAO 209-115, NOAA Employees Aboard Non-NOAA Vessels; NWS Occupational Safety and Health Procedure #18, "Accident/Illness Reporting and Recording".	Applicable to all NWS facilities and personnel which operate small boats.
30. Office Safety	NWS Occupational Safety and Health Procedure #25, "Ergonomics"; NWS Occupational Safety and Health Procedure #13, "Indoor Air Quality." NWS Occupational Safety and Health Procedure #14, "Walking and Working Surfaces."	Applicable to all NWS facilities. Applicable to all NWS employees who work in office facilities.
31. Asbestos Safety	U.S. Department of Labor, Occupational Safety and Health Administration, 29 CFR 1910.1001, Asbestos; U.S. Department of Labor, Occupational Safety and Health Administration, 29 CFR 1910.1001, Appendix D, Medical Questionnaires, Mandatory; U.S. Department of Labor, Occupational Safety and Health Administration, 29 CFR 1926.1101, Asbestos.	Applicable to all NWS facilities, and work locations which contain asbestos or asbestos-containing materials (ACMs) are used. Applicable to all NWS employees who work in facilities or work locations which contain ACMs.

Procedure Number and Name	Reference	Applicability to NWS
32. Motor Vehicle Safety	NWS Occupational Safety and Health Procedure #18, "Accident/Illness Reporting and Recording."	Applicable to all NWS facilities. Applicable to all NWS employees that operate motor vehicles in the performance of their job duties.

24.4 Quality Control

24.4.1 Regional or Operating Unit Environmental/Safety Coordinators

- a. Shall perform an annual assessment of the regional headquarters facilities or operating unit to ensure that these facilities are in compliance with the requirements of this procedure.
- b. Shall perform assessments or designate personnel to perform assessments of all field offices to monitor and promote compliance with the requirements of this procedure every two years.

24.4.2 Station Manager

- a. The Station Manager and the Safety or Environmental/Safety Focal Point shall review this procedure on an annual basis to ensure that the facility is complying with its requirements. Confirmation of this review shall be forwarded to the Regional or Operating Unit Environmental/Safety Coordinator.
- b. Shall annually review the site safety training requirements to ensure compliance with NWS safety procedures.

24.4.3 NWS Headquarters (NWSH)

- a. The NWSH Safety Office shall perform an annual assessment of the NWSH facilities to ensure that the facilities are in compliance with this procedure.
- b. This procedure shall be reviewed annually by the NWSH Safety Office to ensure its continued compliance with internal requirements and applicable regulations.
- c. The NWSH Safety Office shall periodically perform an assessment of the regional headquarters and field offices to ensure compliance with this procedure. The frequency of these regional and field office assessments shall be determined by the NWSH Safety Office.

- d. Requests for clarification concerning this procedure shall be directed to the NWSH Safety Office.

24.5 Responsibilities

24.5.1 Regional or Operating Unit Environmental/Safety Coordinators*

Shall monitor and coordinate to promote compliance with the requirements of this procedure for the regional headquarters, and field offices or operating units.

24.5.2 Station Manager*

- a. Shall have oversight over the implementation of this procedure, and ensure that the requirements of this procedure are followed by individuals at the NWS facility.
- b. Shall evaluate and document site-specific training requirements.
- c. Shall develop site-specific safety orientation outline.
- d. Shall ensure that all employees receive the required training.

24.5.3 Safety or Environmental/Safety Focal Point*

- a. Shall ensure that any responsibilities delegated to them by the Station Manager are implemented in accordance with the requirements of this procedure.
- b. Shall ensure that all training records are maintained in an accessible location on site.

24.5.4 Employees

- a. Individual employees affected by this procedure are required to read, understand and comply with the requirements of this procedure.
- b. Report unsafe or unhealthful conditions and practices to their supervisor or safety focal point.

<p>NOTE: * - Reference WSOM Chapter A-45 for complete list of responsibilities.</p>
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24.6 References

Incorporated References. The following reference is incorporated as a whole or in part into this procedure. These references can provide additional explanation or guidance for the implementation of this procedure.

- 24.6.1 U.S. Department of Labor, Occupational Safety and Health Administration, OSHA 2254 (Revised), 1992, "Training Requirements in OSHA Standards and Training Guidelines." Superintendent of Documents, U.S. Government Printing Office.

24.7 Attachments

Attachment A: Sample Safety Orientation Outline

Attachment B: Site-Specific Training Requirements (WFO Springfield, MO)

ATTACHMENT A

Sample Safety Orientation Outline

The Safety Orientation shall include, but not be limited to, an overview of the following areas:

1. Emergency Preparedness/Evacuations

- A Notification of personnel
- B. Assembly & Accountability Procedures

2. Reporting Requirements

- A. Accident/Incident
- B. Illness
- C. First Aid

3. Motor Vehicles

- A. Speed limit in parking areas
- B. Parking procedures
- C. Traffic flow

4. Site Requirements

- A. Designated smoking/no smoking areas
- B. Eating/Break areas
- C. Reporting damage to property
- D. Clothing
- E. Security

5. Personal Protective Equipment

- A. Building placards system
- B. Areas requiring use of PPE.

C. Types of PPE by location.

6. Fire Protection

- A. Reporting of fires
- B. Housekeeping
- C. GFCI's and extension cords
- D. No smoking areas

7. Permit Operations

- A. Welding/Burning operations
- B. Confined Space Entry
- C. Excavations
- D. Special Work

8. Hazardous/Solid Waste

- A. Storage locations/Handling
- B. Responsibility
- C. Chemical spill procedures
- D. Recycling

9. Hazard Communication

- A. Right-to-Know
- B. MSDS's
- C. Labeling

10. Unique Hazards - As Required

ATTACHMENT B

Site-Specific Training Requirements (WFO Springfield, MO)

Procedure No. & Title	Training Required	Employee Classification	Completion Rate
1. Fall Protection	Use of Fall Protection Equipment	Electronic Technicians DAPM	
2. Working Alone	First Aid and CPR	Electronic Technician Management Meteorological Technicians and Interns	
4. Control of Hazardous Energy Sources	Safe Application Usage and Removal of Energy Control Devices	Electronic Technicians Management	
5. Emergency Action Plan	Sufficient Number of Employees to assist with evacuation, accountability, and equipment and facility protection.	Administrative Asst. Electronic Technician Forecasters Management Meteorological Technicians and Interns Meteorologist in Charge Senior Forecasters	

Procedure No. & Title	Training Required	Employee Classification	Completion Rate
6. Fire Protection	<p>Fire extinguisher training.</p> <p>Awareness training.</p> <p>-----</p> <p>UAB Hydrogen Fire Prevention</p>	<p>Administrative Asst.</p> <p>Electronic Technician</p> <p>Forecasters</p> <p>Management</p> <p>Meteorological Technicians and Interns</p> <p>Meteorologist in Charge</p> <p>Senior Forecasters</p> <p>-----</p> <p>Electronic Technician</p> <p>Forecasters</p> <p>Management</p> <p>Meteorological Technicians and Interns</p> <p>Meteorologist in Charge</p> <p>Senior Forecasters</p>	
7. HAZCOM	NWS Personnel who work with, purchase, or are potentially exposed to chemicals	<p>Administrative Asst.</p> <p>Electronic Technician</p> <p>Forecasters</p> <p>Management</p> <p>Meteorological Technicians and Interns</p> <p>Meteorologist in Charge</p> <p>Senior Forecasters</p>	
8. Personal Protective Equipment	Need, Use, Selection, and Care of PPE	<p>Electronic Technician</p> <p>Management</p> <p>Meteorological Technicians and Interns</p>	

Procedure No. & Title	Training Required	Employee Classification	Completion Rate
12. Confined Space	NWS Confined Space a. Entry Supervisor b. Entrant c. Attendant	Electronic Technician Meteorologist in Charge	
24. Safety Training	Orientation and as required by specific procedures	Administrative Asst. Electronic Technician Forecasters Management Meteorological Technicians and Interns Meteorologist in Charge Senior Forecasters Short and Long Term Visitors Contractors	